UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/834,918	04/16/2001	Franck Le	017.39657X00	5412

			EXAMINER
32294	7590	09/27/2005	CHANG, SUNRAY

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ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 09/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/834,918	LE ET AL.
	Examiner	Art Unit	
	Sunray Chang	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 July 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-37* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   This office action is in responsive to the paper filed on July 20th, 2005.

Claims 1 – 37 are presented for examination.

Claims 1 – 37 are rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – .

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the

United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

another filed in the United States before the invention by the applicant for patent, except that an international application

filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed

in the United States only if the international application designated the United States and was published under Article

21(2) of such treaty in the English language.

2.   **Claims 1, 8 – 13, 20 – 25 and 33 – 37 are rejected** under 35 U.S.C. 102(e) as being

anticipated by Jean **Walrand** (U.S. Patent No. 6,674,760, and referred to as **Walrand**

hereinafter).

Regarding independent claims 1, 13, and 25, Walrand teaches,

- A method of classifying [classify, Col. 2, Line 28] Internet Protocol data [data stream,

    Col. 2, Line 28] to be sent from a source apparatus to a destination apparatus [end-to-end,

    Col. 2, Line 19] in a packet switch network [pocket-switch network, Col. 1, Line 11].

- Receiving data at a first node [the first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34],

- the data comprising a header [IP header] comprising a list of at least one intermediate node to be visited on a way to the destination apparatus [connections]. [Abstract; see also subnets, Fig. 1]

- Classifying [classifies] data at the first node [first accesses node] based on an entry in said header [IP destination address, IP source address, and a class of service identifier]. [Col. 2, Line 34 – 36, see also Abstract]

   Examiner further explains, the term, "an entry" in a header, has been defined in specification as "destination address field" [Page 8, Lines 1 – 2]

Regarding dependent claims 8, 20, and 33, **Walrand** teaches, data [IP pocket, Col. 2, Line 34] is received at said first node [first accesses node, Col. 2, Line 33] from said source apparatus [source, Col. 2, Line 35].

Regarding dependent claims 9, 21, and 34, **Walrand** teaches, reserving [allocate] resources of nodes [resources] from said source apparatus to said destination apparatus [end-to-end connection]. [Col. 2, Line 36 – 38]

Regarding dependent claims 10, 22, and 35, **Walrand** teaches, forwarding a request from source apparatus to first node [recognizes which end-to-end connection the packet belongs to, Col. 2, Line 36 – 37].

Regarding dependent claims 11, 23, and 36, Walrand teaches, storing source routing

information at first node [first accesses node in a sub-network that receives an IP packet, Col. 2,

Line 33 – 34].

Regarding dependent claims 12, 24, and 37, Walrand teaches, forwarding data from

first node to a second node; and classifying said data at said second node based on said entry in

said header [IP destination address, IP source address, and a class of service identifier]. [Col. 2,

Line 34 – 36, see also Abstract]

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459

(1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness
     or nonobviousness.

3.   · **Claims 2 – 4, 14 – 16, 26 – 28, and 29 are rejected** under 35 U.S.C. 103(a) as being

unpatentable over **Walrand**, and in view of Jacob W. Jorgensen (U.S. Patent No. 6,452,915, and

referred to as **Jorgensen** hereinafter).

(**Walrand** as set forth above generally discloses the basic inventions.)

Regarding Claims 2, 14 and 26, **Walrand** teaches, entry is provided within a header of

said data [Col. 2, Line 34 – 36, see also Abstract].

Walrand does not teach, the data for IPv6.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6, for the purpose of

upgrading.

It would have been obvious to a person of ordinary skill in the art at the time of

applicant's invention to modify the teaching of **Walrand** to include "the data for IPv6" for the

purpose of upgrading.

Regarding Claims 3, 15 and 27, **Walrand** teaches, classifying is based on a destination

address [Col. 2, Line 34 – 35] provided within header [Col. 2, Line 30, see also Col. 2, Line 34 –

36, see also Abstract].

Regarding Claims 4, 16 and 28, **Walrand** teaches,

- header [IP headers, Col. 2, Line 30] includes a segments left field [class of service

  identifier, Col. 2, Line 35 – 36], a first destination address field [IP source address, Col.

2, Line 35] and a last destination address field [IP destination address, Col. 2, Line 34 –

35].

■ Classifying [classifies, Col. 2, Line 34] is based on information within last destination

address field [IP destination address, Col. 2, Line 34 – 35] of header [Col. 2, Line 34 –

36, see also Abstract].

Regarding Claim 29, Walrand teaches, Classifying [classifies, Col. 2, Line 34] is based

on information within last destination address field [IP destination address, Col. 2, Line 34 – 35]

of header [IP headers, Col. 2, Line 30].

Claims 5 – 7, 17 – 19, and 30 – 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over **Walrand**, and in view of **Jorgensen** as as applied to claims **2 – 4, 14 – 16, 26**

– 28, and 29 above, and further in view of Charles E. Narad (U.S. Patent No. 6,157,955, and

referred to as **Narad** hereinafter).

Regarding Claims 5, 17, and 30, Walrand teaches, Receiving data at a first node [the

first accesses node in a sub-network that receives an IP packet, Col. 2, Line 33 – 34], the data

comprising a header comprising a list of at least one intermediate node to be visited on a way to

the destination apparatus [Abstract]. Classifying [classifies] data at the first node [first accesses

node] based on an entry in said header [IP packet] [Col. 2, Line 34 – 36].

Walrand does not teach, said entry is provided within one of LSRR and SSRR of the data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of applicant's invention to modify the teaching of **Walrand** to include "entry is provided within one of LSRR and SSRR, and the data for IPv4" for the purpose of using in different conditions.

Regarding Claims 6, 18, and 31, **Walrand** teaches, classifying is based on a destination address [Col. 2, Line 34 – 35] provided within header [Col. 2, Line 30].

Walrand does not teach, routing header with IP options like LSRR and SSRR, and the data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col. 97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of

applicant's invention to modify the teaching of **Walrand** to include "routing header with IP

options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different

conditions.

Regarding Claims 7, 19, and 32, Walrand teaches,

- routing header [IP headers, Col. 2, Line 30] includes a segments left field [class of

  service identifier, Col. 2, Line 35 – 36], a first destination address field [IP source

  address, Col. 2, Line 35] and a last destination address field [IP destination address, Col.

  2, Line 34 – 35].

- Classifying [classifies, Col. 2, Line 34] is based on information within last destination

  address field [IP destination address, Col. 2, Line 34 – 35] of routing header [IP headers,

  Col. 2, Line 30].

Walrand does not teach, routing header with IP options like LSRR and SSRR, and the

data for IPv4.

Jorgensen teaches, IP of network layer can be Ipv4 or an IPv6.

Narad teaches, IP options in IP header [Col. 93, Line 43], header contain IP options [Col.

97, Line 39 – 41], and IP options, for example, LSRR, SSRR [Col. 96, Line 47 and 49]

It would have been obvious to a person of ordinary skill in the art at the time of

applicant's invention to modify the teaching of **Walrand** to include "routing header with IP

options like LSRR and SSRR, and the data for IPv4" for the purpose of using in different

conditions.

Response to Amendment

Claim Rejections - 35 USC § 102 & 103

4.   Applicants' arguments regarding "Warland makes no mention of a list of intermediate

nodes included in the IP header" is disagreed with. Warland's teaching in the Abstract "end-to-

end QoS for connections in IP-based networks, ... An embodiment of the invention can

differentiate connections between routers and can classify data streams for both inter-subnet and

intra-subnet connections using only information provided in the IP headers" has pointed out the

inter-subnet and intra-subnet connections, compared with Figure 1 of Warland reference, inter-

subnet and intra-subnet are all subnets and differentiate connections using only information

provided in the IP headers.

The rejections retained.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sunray Chang whose telephone number is (571) 272-3682. The

examiner can normally be reached on M-F 7:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Anthony Knight can be reached on (571) 272-3687. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-746-3506.

Sunray Chang
Patent Examiner
Group Art Unit 2121
Technology Center 2100
U.S. Patent and Trademark Office

Anthony Knight
Supervisory Patent Examiner
Group 3600

September 21, 2005